

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: KIM, Min-won

SERIAL NO.: 10/579,365

ART UNIT: 4153

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EXAMINER: Mellon, D. C.

TITLE: FLUID FLOW INTERRUPTION MEANS FOR FILTER OF WATER PURIFIER

Amendment C: REMARKS

Upon entry of the present amendments, previous Claims 3 and 4 have been canceled and new claims 5 and 6 substituted therefor. Claim 1-2 were canceled in a previous amendment. Reconsideration of the rejections, in light of the foregoing amendments and present remarks, is respectfully requested. Applicant believes the new claims more clearly distinguish the present invention from the prior art.

In the Office Action, it was indicated that Claim 3 was rejected under 35 U.S.C. § 102(b) as anticipated by Horne (USP 3,319,791). Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Horne in view of Nam et al. (US 2003/0042191).

As an overview to the present reply, Applicant presents new claims 5 and 6 to traverse the rejections. Applicant believes the new claims are supported by the specification. Additionally, Applicant believes new claim 5 is not anticipated by Horne, and as a result, new claim 6 is also allowable.

**I. Limitations of New Claims 5 and 6 Are Supported by Applicant's Disclosure**

New claim 5 is an independent claim incorporating the limitations of canceled claim 3. New claim 6 depends from new claim 5, and includes the limitations of canceled claim 4. New independent claim 5 includes a limitation that the "hollow cylindrical protuberance [is] suitable for

allowing fluid to flow therethrough from said inlet port to said guide passage.” Paragraph [0027] of Applicant’s specification states: “. . . service water, which is introduced into the head 100 through the inlet port 110, flows through the space defined between the guide passage 120 and the fluid guide rod 210 which is inserted into the hollow cylindrical protuberance 121.” Figs. 4, 5, and 6 of Applicant’s drawings show the hollow cylindrical protuberance 121 around the guide rod 210. No ports are shown in the figures, nor are any ports discussed in the specification, which would allow fluid to flow from the inlet port 110 to the guide passage 120 other than through the hollow cylindrical protuberance 121. Thus, Figs. 4, 5, 6 of Applicant’s disclosure support that the hollow cylindrical protuberance is suitable for allowing fluid to flow therethrough as the fluid travels from the inlet port 110 to the guide passage 120.

## **II. New Claim 5 Is Not Anticipated**

Applicant believes new claim 5 is not anticipated under 35 USC 102(b) by Horne. “[U]nless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.” *Net MoneyIN, Inc. v. VeriSign, Inc.*, No. 2007-1565 at 8 (Fed. Cir. Oct. 20, 2008). Thus, if the reference does not disclose each and every claimed element “arranged and combined in the same way as recited in the claim,” then the reference does not anticipate the claim. *Id.*

Applicant contends new claim 5 is not anticipated because Horne does not disclose each and every element of new claim 5 arranged and combined in the same way as recited in new claim 5 because 1) the hollow cylindrical protuberance of Horne is not a protuberance at all, 2) the fluid does not flow through a hollow cylindrical protuberance from the inlet port to the guide passage, and 3)

Horne's spring is not supported by a hollow cylindrical protuberance.

First, page 5 of the Office Actions states that Horne has a hollow cylindrical protuberance (55 - central bore) having an inner diameter greater than an outer diameter of said fluid guide rod. The office action also states "this is clearly shown in the figure", but Applicant cannot find how this is clearly shown because what is cited as the hollow cylindrical protuberance 55 of Horne is an empty space for the guide rod 56 and not a protuberance at all. Horne states: "A central bore 55 [i.e. empty space] in the plug 52 serves as a guide for the reduced pilot end 56 provided on the upper end of the valve 29." (Horne, col. 2, ll. 65-67). Applicant is confused as to how an empty space of a bore 55 for the reduced pilot end [guide rod] 56 can be confused with a hollow protuberance. Because what is cited as the hollow cylindrical protuberance is not a protuberance at all, Horne is not arranged and combined in exactly the same way as in new claim 5.

Second, new claim 5 requires fluid to flow through the hollow cylindrical protuberance from the inlet port to the guide passage. The hollow cylindrical protuberance 55 of Horne does not allow fluid to flow therethrough from the inlet port 37 to the guide passage. Figs. 2 and 3 of Horne clearly show that if fluid were to fill the bore 55, it would remain in the bore 55 because there is no passageway or outlet for the bore 55 [cited hollow cylindrical protuberance]. Thus, Horne is further not arranged and combined in the same way as in new claim 5.

Third, new claim 5 requires the elastic spring to be supported by the hollow cylindrical protuberance. Horne's spring is not supported by a hollow cylindrical protuberance. Horne states: "the spring is housed in an annular groove 51 provided in a plug 52 that screws into the upper end of the valve body 34 as shown at 53." (Horne, col. 2, ll. 62-64). Thus, Horne's spring is supported by a groove 51 and not a hollow cylindrical protuberance, and Horne is further not arranged and combined in the same way as in new claim 5.

Because the hollow cylindrical protuberance and elastic spring of Horne are not arranged and combined in the same way as in new claim 5, new claim 5 is not anticipated by Horne.

### **III. New Claim 6 Is Allowable**

Because Applicant believes new claims 5 is allowable and not anticipated, Applicant also believes dependent claim 6 is also allowable and not anticipated by Horne.

Applicant believes new independent claim 5 is not obvious under 103(a). Dependent claim 6 depends from independent claim 5. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03 (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Because applicant believes new independent claim 5 is not obvious under 35 U.S.C. 103(a), Applicant contends dependent claim 6 is also not obvious.

### **IV. Conclusion**

Based upon the foregoing analysis, Applicant contends that new claim 5 and 6 are allowable. New claim 5 is not anticipated by Horne because Horne does not have a hollow cylindrical protuberance at all, fluid does not flow through a hollow cylindrical protuberance in Horne, and an elastic spring is not supported by a hollow cylindrical protuberance in Horne. Applicant believes new claim 6 is allowable because new claim 5 is not anticipated. Reconsideration of the rejections and allowance of the claims at an early date is earnestly solicited. Since no new claims have been added above those originally paid for, no additional fee is required.

Respectfully submitted,

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